TABLE M.5.6.1.2–6. — National Ignition Facility Accident Frequency and Risk (Unfavorable Meteorology)

		MEI		Offsite Population ^a		Individual Noninvolved Worker		Noninvolved Worker Population	
Accident	Frequency (per year)	Dose (rem)	LCFs b	Dose (person-rem)	LCFs c	Dose (rem)	LCFs b	Dose (person-rem)	LCFs ^c
Earthquake during No Action Alternative operations	2.00×10^{-8}	1.23 × 10	10 7.38 × 10^{-1}	4 6.10 × 10 ⁻⁸	8 3.66 × 10 ⁻¹	$^{1} 2.67 \times 10^{-1}$	1.60×10^{-13}	4.44× 10 ⁻⁸	2.66×10^{-11}
Earthquake during depleted uranium shot	2.00×10^{-9}	2.19×10^{-2}	11.31×10^{-1}	4 9.02 × 10 ⁻⁹	95.41×10^{-13}	$^{2}4.51\times10^{-1}$	$^{12}.71 \times 10^{-14}$	7.48×10^{-9}	94.49×10^{-12}
Earthquake during highly enriched uranium shot	2.00×10^{-9}	2.28×10^{-2}	11.37×10^{-1}	4 9.34 × 10 ⁻⁹	95.61×10^{-13}	$^{2}4.66\times10^{-1}$	$^{1}2.80 \times 10^{-14}$	7.66×10^{-9}	94.60×10^{-12}
Earthquake during thorium shot	2.00×10^{-9}	2.29 × 10	11.37×10^{-1}	4 9.52 × 10 ⁻⁹	$9.5.71 \times 10^{-13}$	$^{2}4.62\times10^{-1}$	$^{1}2.77 \times 10^{-14}$	8.20×10^{-9}	94.92×10^{-12}
Earthquake during tracer shot	2.00×10^{-9}	1.40 × 10	11 8.42 × 10 ⁻¹	$^{5}6.52\times10^{-9}$	93.91×10^{-13}	$^{2}3.05\times10^{-1}$	$^{11}1.83 \times 10^{-14}$	4.88 × 10 ⁻⁹	2.93×10^{-12}
Earthquake during plutonium without yield shot	2.00×10^{-9}	4.33 × 10 ⁻¹	$^{11}2.60\times10^{-1}$	4 1.67 × 10 ⁻⁸	8 1.00 × 10 ⁻¹	$^{1}9.39 \times 10^{-1}$	$^{1}5.63 \times 10^{-14}$	1.65 × 10 ⁻⁸	9.88×10^{-12}
Earthquake during plutonium with yield shot	2.00×10^{-9}	2.32×10^{-1}	11 1.39 × 10 ⁻¹	4 9.96 × 10 ⁻⁹	95.98×10^{-13}	2 5.01 × 10 ⁻¹	$^{1}3.01 \times 10^{-14}$	8.54 × 10 ⁻⁹	5.12×10^{-12}

Source: LLNL 2003d.

LCFs = latent cancer fatalities; MEI = maximally exposed individual.

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^a Based on the population of approximately 6,900,000 persons residing within 50 miles of LLNL.

^b Increased likelihood of a latent cancer fatality.

^c Increased number of latent cancer fatalities.